



# DSU IV ESP

## All-Rate DSU with SNMP and Dial Backup

### Product Features

- Supports DDS rates from 2.4 to 64 Kbps including 19.2 and 38.4 Kbps
- 4-wire Switched 56 operation
- Embedded SNMP and Telnet
- Control port provides SLIP/PPP access to SNMP or VT100 terminal configuration
- Two ESP option slots
- 10BaseT Ethernet SNMP access port available with ESP ethernet card
- Automatic or manual dial backup with option modules
- Time of day and weekend dial backup lockout options
- Industry-leading five-year North American warranty

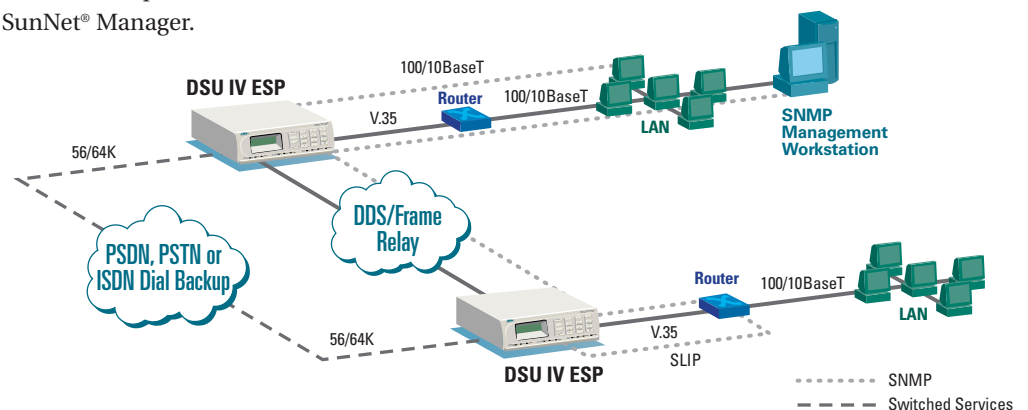
The ADTRAN® DSU IV ESP™ is an all-rate data service/channel service unit (DSU/CSU) with an integral SNMP (simple network management protocol) agent and optional dial backup (DBU) capabilities. It provides an interface between digital data service (DDS) or 4-wire Switched 56 and the customer's data terminal equipment (DTE). The DSU IV ESP provides access to traditional dedicated point-to-point, multi-point, or Frame Relay services.

The unit supports synchronous (2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 Kbps) and asynchronous (2.4, 4.8, 9.6, 19.2, 38.4, and 57.6 Kbps) data rates. Both EIA-232 and V.35 physical interfaces are provided for connection to the customer's DTE equipment.

Embedded SNMP and Telnet are available through SLIP (serial line internet protocol) or PPP (point to point protocol) using the integrated control port or through an optional 10BaseT ethernet port when configured with the plug-in ESP ethernet card. Through the Management Information Base (MIB)-II standard and an ADTRAN-supplied enterprise MIB, the DSU IV ESP can be configured, monitored, and diagnosed using standard SNMP network management programs such as HP OpenView®, Netview®, and SunNet® Manager.

The Dial Backup (DBU) feature of the DSU IV ESP allows automatic or manual switched backup in the event of a dedicated line failure. The addition of DBU is accomplished through a family of plug-in ESP DBU cards. There are three versions of ESP DBU cards available for the DSU IV ESP: ISDN, 4-wire Switched 56, and V.34 analog (max. 33.6 Kbps). Upon recognition of a failure(s), the unit connects to the remote end using the switched network. The user can choose whether the unit automatically or manually reverts to the dedicated circuit when it is restored. Optional weekend and time of day DBU lockout options are provided.

The unit responds to standard loopback commands from the telephone company central office. In addition, there are several built-in test capabilities. Complete control, configuration, and diagnosis are available through a 16-key keypad and a two-line by 16-character LCD display. A VT100 terminal configuration and control mode is also available through the control port. Flash download capability allows for quick and easy installation of new features and enhancements.





### ADTRAN, Inc.

Attn: Enterprise Networks  
901 Explorer Boulevard  
Huntsville, AL 35806

P.O. Box 140000  
Huntsville, AL 35814-4000

256 963-8000 voice  
256 963-8699 fax

### General Information

800 9ADTRAN  
info@adtran.com  
www.adtran.com

### Pre-Sales

#### Technical Support

800 615-1176 toll-free  
application.engineer@adtran.com  
www.adtran.com/support

### Where to Buy

877 280-8416 toll-free  
channel.sales@adtran.com  
www.adtran.com/where2buy

### Post-Sales

#### Technical Support

888 423-8726  
support@adtran.com  
www.adtran.com/support

### ACES Installation & Maintenance Service

888 874-ACES  
aces@adtran.com  
www.adtran.com/support

### International Inquiries

256 963 8000 voice  
256 963-6300 fax  
international@adtran.com  
www.adtran.com/international

### For the regional office nearest you, visit:

www.adtran.com/where2buy



ADTRAN is an ISO 9001, ISO 14001, and a TL 9000 certified supplier.

61204011L1-8F April 2003  
Copyright © 2003 ADTRAN, Inc.  
All rights reserved.

# DSU IV ESP

## All-Rate DSU with SNMP and Dial Backup

## Product Specifications

### Operating Modes

- Dedicated DDS (point-to-point, multipoint)
- Switched 56 (4-wire)
- ISDN (1B+D)
- PSTN (V.34 analog)

### Network Data Rates

- **Dedicated mode service rates:** 2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 Kbps
- **Switched mode service rate:** 56 Kbps
- **Dial backup:** Switched 56 (56 Kbps), V.34 (2.4 - 33.6 Kbps), ISDN (56 or 64 Kbps)

### DTE Rates Provided

- DTE rates match service rates
- DTE-to-loop rate matching in both dedicated and switched modes
- **Synchronous rates:** 2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 Kbps
- **Asynchronous rates:** 2.4, 4.8, 9.6, 19.2, 38.4, and 57.6 Kbps

### DTE Interfaces

- Both EIA-232 and V.35 electrical and physical DTE interfaces

### SNMP

- SNMP & Telnet
- Integrated SLIP/PPP (async) port
- Physical Connector RJ-48S and DB-25
- Optional 10BaseT interface with ESP Ethernet Card
- MIB II RFC 1213 complaint

### Clocking

- Normal DDS or private network tributary (slaved to network receive clock)
- Private network master (internal)
- Normal DDS tail circuit
- Private network master (slaved to external clock)

### Switched Mode Dialing Options

- Stored number
- Front panel keypad
- DTR dialing of stored numbers
- In-band AT commands
- V.25 bis in-band dialing

### Diagnostics

- **Network:** CSU and DSU loopbacks
- **User:** Local DTE and loop, remote V.54
- **Test Patterns:** 2047, 511, DDS stress patterns 1-4

### Line Requirements

- Loop transmission parameters as defined in:
  - **AT&T PUB 62310:** Dedicated DDS
  - **AT&T PUB 4146B:** Switched 56
  - **Sprint TS 0046:** Switched 56

### Line Interface

- RJ-48S
- 4-wire
- Full duplex

### Receiver Sensitivity

- -45 dB at all rates

### Agency Approvals

- FCC Part 15
- Class A
- Part 68
- Industry Canada CS03
- UL and CUL

### Environment

- **Operating:** 0 to 50°C (32 to 122°F)
- **Storage:** -20 to 70°C (-4 to 158°F)
- **Relative Humidity:** Up to 95%, non-condensing

### Physical

- **Dimensions:** 10.4"D x 8.0"W x 2.4"H
- **Weight:** 4.5 lbs
- **Power:** 115 VAC, 60 Hz, 5 W

### Product Includes

- Two 8-pin to 8-pin modular cables
- Modular to female DB-25 adapter
- User Manual

## Ordering Information

Equipment	Part #
DSU IV ESP	1204011L1
ESP Ethernet Card	1204005L1
ESP 4-wire Switched 56 DBU Card	1204001L1
ESP V.34 DBU Card	1204002L2
ESP ISDN DBU Card	1204004L1
19" Dual ESP Shelf	1200202L1
Dual ESP Blank Cover	1200202L2



Shown with option cards installed

Specifications subject to change without notice. DSU IV ESP is a trademark of ADTRAN, Inc. ADTRAN is a registered trademark of ADTRAN, Inc. All registered trademarks and trademarks mentioned in this publication are the property of their respective owners.